

Date: Monday, 3/17/2008 11:56:46 AM  
 User: Kim Johnston

## Process Sheet

SPLIT-2

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : STEP EXTRUSION
Job Number : 38023	
Estimate Number : 10113	
P.O. Number :	Part Number : D2244116
This Issue : 3/17/2008 S.O. No. :	Drawing Number : D2244 REV D1
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : PURCHASED PARTS	Drawing Revision : D1
Previous Run : 33733	Material :
Written By : <u>                    </u>	Due Date : 4/20/2008 Qty: 110 Um: Each
Checked & Approved By : <u>                    </u>	
Comment : Est: A 2403/04 New Issue KJ	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0

PG

PURCHASING



Comment: PURCHASING

Issue P/O: 5935

C 208/03/18

- a) Extrude as per Dwg D2244
- b) Material: 6061-T6 (QQ-A-200/8)
- c) Minimum yield tensile strength = 35 ksi
- d) Minimum ultimate tensile strength = 38 ksi
- e) Minimum elongation = 8%
- f) Order at 116" long
- g) Caradon Indalex Tool # MH-18865
- h) To be packed per DSK 066
- i) Pull test to ASTM standard B221 required.
- j) Material certification is required

(110)

2.0

D2244116P

Step Extrusion



Comment: Qty.: 1.0000 Each(s)/Unit Total : 110.0000 Each(s)  
 STEP EXTRUSION

3.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1  
 Receive & Inspect For Transit Damage  
 Ensure certification are attached

                     8/1 (8/1)

4.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK  
 Check Pull test per Dwg D2244 for compliance page attached.  
 Check hardness with Webster tester

                     8/1 (8/1)





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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: STEP EXTRUSION

Job Number: 38023

Part Number: D2244116

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock (lin feet)

Location: GA

HAL 04/08

~~GA~~

08/04/30 Hm. (44)

08/04/21

*[Signature]*

81

6.0

QC21

FINAL INSPECTION/W/O RELEASE



08/05/01  
08/04/22

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



U 08/04/22

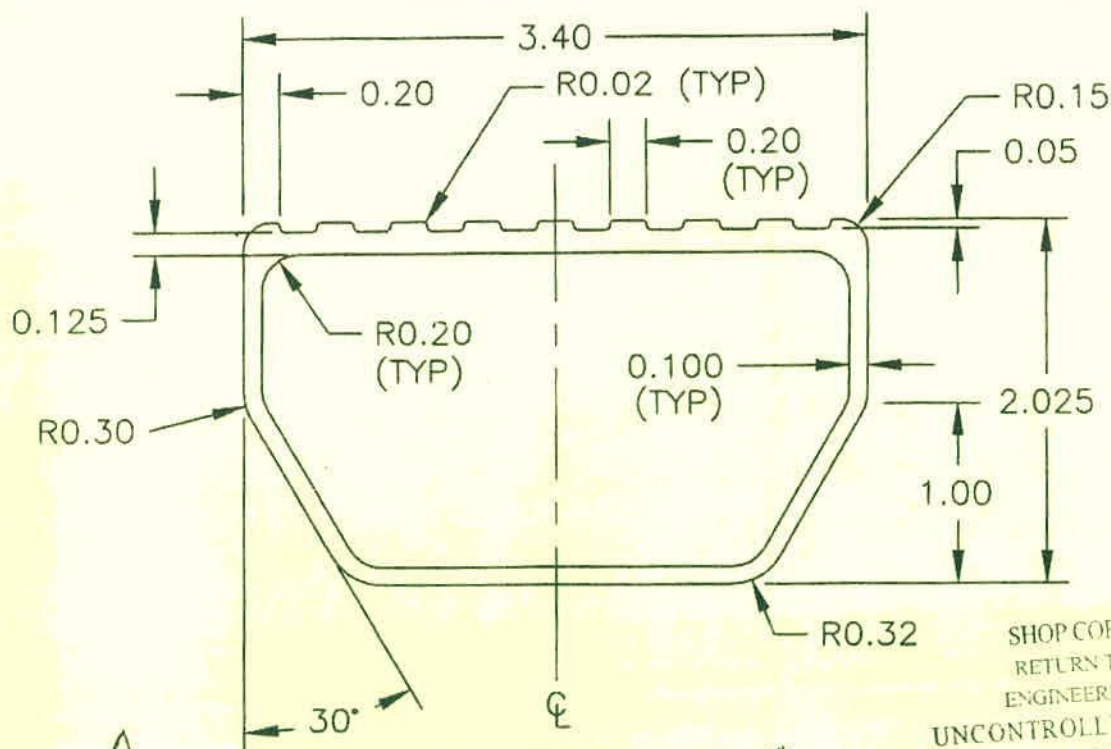
U 08/05/01 44





DESIGN BW	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>RE</i>	APPROVED <i>MA</i>	DRAWING NO. D2244	REV. D SHEET 1 OF 1
DATE 98.11.18		TITLE STEP EXTRUSION	SCALE 1:1
A	94.07.05	NEW ISSUE	
B	94.07.11	REDESIGNED	
C	94.08.08	REDESIGNED	
D	98.11.18	REMOVED 6005A MATERIAL INCORPORATED DEO 9081	
D1	01.04.17	ADDED DIE # <i># CP</i>	

RELEASED  
1981/25 KE



MANUFACTURED USING CARBON INDALOX DIE #

PART NUMBER D2244-XX.X  
XX.X IS CUT LENGTH IN INCHES

MATERIAL: 6061-T6 (QQ-A-200/8)

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE MINIMUM MECHANICAL PROPERTIES STATED BELOW:

MINIMUM TENSILE YIELD STRENGTH = 35 ksi  
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi  
MINIMUM ELONGATION = 8%

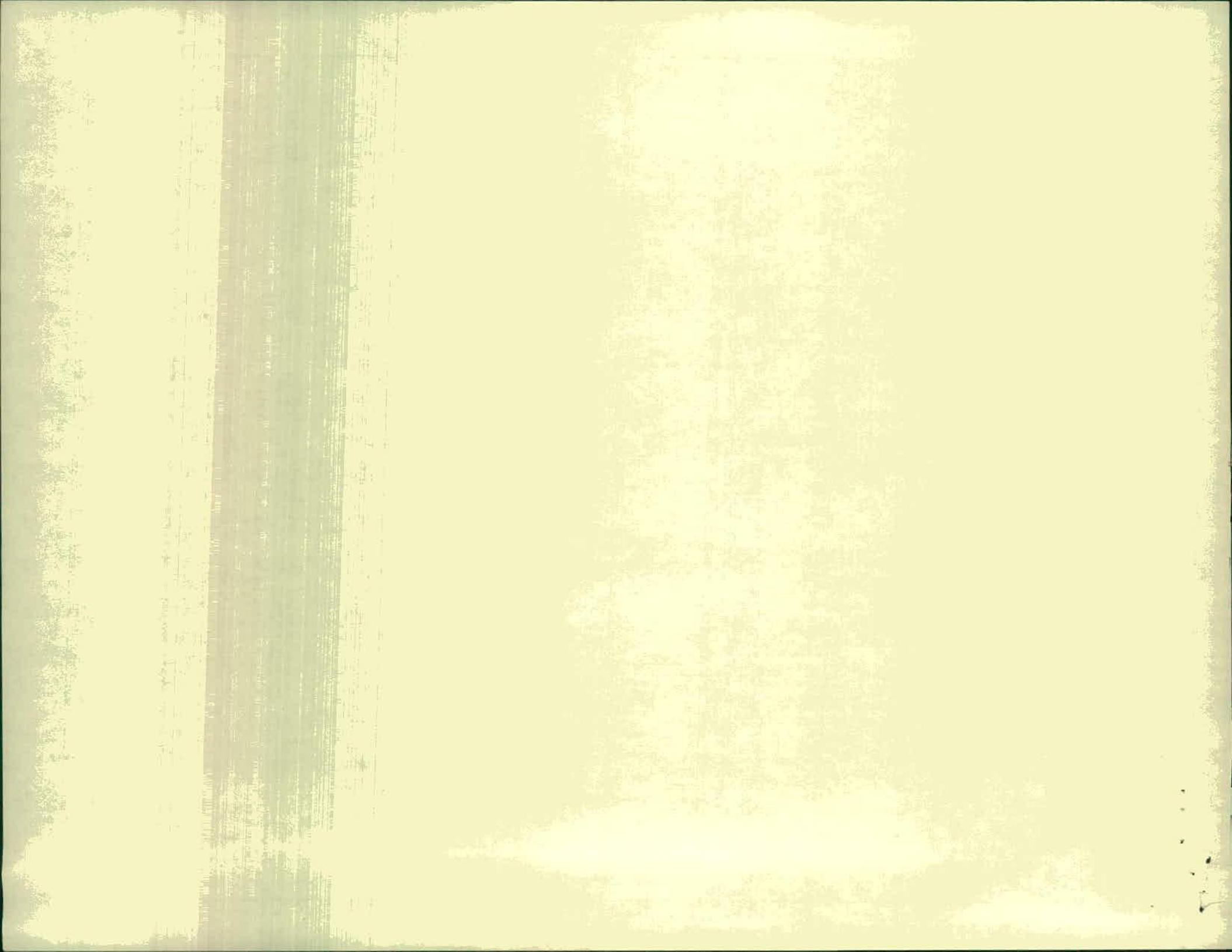
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED  
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

SHOP COPY  
RETURN TO  
ENGINEERING

UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE

WORK ORDER  
NO. 38023













## Rapport des propriétés mécaniques Mechanical Properties Test Report

Client / Customer : **DART AEROSPACE LTD**  
 Adresse / Address : **270 ABERDEEN STREET  
 HAWKESBURY ONT,  
 K6A 1K7**

# commande Indalex / Indalex order # : **8032434**  
 # bon de commande / Purchase order # : **5935**  
 # de matrice / Die # : **MS 18865** Description : **Step Extrusion**  
 Alliage & trempage / Alloy & temper : **6061 T6**  
 # Contrôle / Control # : **71006-2**  
 # Coulée / Cast # : **43000**

	Min.requis Min.required	Résultat actuel Actual results
Tension ultime Ultimate stress (psi)	38 000	39849
Contrainte élastique Yield stress (psi)	35 000	35888
% élongation dans 2" % elongation in 2"	8	12
Dureté Rockwell E (hre) Rockwell E Hardness (hre)	88 @ 100	89

### Composition chimique typique / Typical chemical composition :

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
6063	0,20 - 0,60	0,35 Max	0,10 Max	0,10 Max	0,45 - 0,90	0,10 Max	0,10 Max	0,10 Max
6005	0,60 - 0,90	0,35 Max	0,10 Max	0,10 Max	0,40 - 0,60	0,10 Max	0,10 Max	0,10 Max
6005A	0,68 - 0,72	0,15 - 0,27	0,08 - 0,12	0,20 - 0,24	0,48 - 0,52	0,03 Max	0,05 Max	0,03 Max
6061	0,40 - 0,80	0,70 Max	0,15 - 0,40	0,15 Max	0,80 - 1,20	0,04 - 0,35	0,25 Max	0,15 Max
6351	0,7 - 1,3	0,5 Max	0,10 Max	0,40 - 0,80	0,40 - 0,80	—	0,20 Max	0,20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221 excepté pour la section 8.2 (nombre de spécimen) et AMS QQA 200/8 excepté pour la section 4.2.3.1 (nombre de spécimen) qui sont déterminés par les exigences du client.

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221 except for section 8.2 (number of specimen) and AMS QQA 200/8 except for section 4.2.3.1 (number of specimen) which is determined by customer requirement.

Sincèrement vôtre,  
 Yours truly,

date : 2008-04-09



Bruno Morency  
 Technicien de la qualité  
 Quality technician

Indalex Limited

